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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/475,135	12/30/1999	HYEK SEONG KWEON	465-647P	5994

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EXAMINER	
YENKE, BRIAN P	

ART UNIT	PAPER NUMBER
2614	

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17

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/475,135	KWEON ET AL.	
	Examiner	Art Unit	
	BRIAN P. YENKE	2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *RCE (29 Jan 04)/Amendment (29 Dec 03)*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission for an RCE has been entered.

2. Applicant's arguments with respect to claims 1-21 have been considered but are not persuasive.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Suh US 5,831,591 and Chor et al., US 6,141,003**.

In considering claims 1-2,

a) the claimed setting a screen display mode... is met microcomputer 110 which can display two screens as shown in Fig 3c/d/e.

b) the claimed automatically sizing displayed elements... is met where Suh discloses that based on the users input for a desired screen mode, the TV microcomputer controls (in addition to relaying information from unit 210) double window processing unit 100 which either enlarges/reduces the selected source(s) based on the selected screen mode.

c) the claimed determining whether or not a menu key is input s met by microcomputer 110 which recognizes the (screen mode) key input via user (Fig 1&4) (col 1, line 43-60) and information processing unit 210 which also receives a key input via user. Where the display can display a 1st television signal, 2nd television signal, and also various kinds of communication services transmitted via the VAN, such as stock market quotes, news, weather or TV information (col 1, line 36-52).

*d) the claimed determining a current screen display mode...*is met microcomputer 110 which controls the operation of the double window processing according to a selected screen mode.

*e) the claimed displaying a menu element...*is met by double window processing unit 100 which receives instruction from information processing unit 210 via microcomputer 110 to display the appropriate source(s) on the desired menu mode selected by the user (Fig 3A-3E). As to the *automatically resizing said menu element in accordance with the size of the screen on which the menu is displayed* is met where based upon the display mode (Fig 3A-3E) will automatically resize the screen to the desired setting,

which will automatically resize the elements on that screen into the new desired size. Although, a dual picture mode the size of the elements will be smaller than if a single picture were displayed, they are still viewable by a user (i.e. easily discriminated).

However, Suh remains silent on (b) displaying interactive program information and displaying an interactive menu element including an icon.

Suh discloses a system which is able to display based on the user's desired mode (col 4, line 13-20) via a key input signal to display the selected signals which includes main video signal (TV1), Sub Video signal TV and communication services transmitted via VAN (i.e. stock market quotes, news, weather or TV information).

The use of interactive program information and interactive menu elements including an icon being displayed/utilized, is notoriously well-known in the art.

The examiner, provides Chor et al., US 6,141,003, which discloses a graphical user interface using a channel bar with icons to assist the viewer while navigating channels. As shown in the Figures 2-7, the user is able to select, view information on the channel bar/menu by selecting the appropriate icon/program information (i.e. the user can select find show (142, Fig 6) or windows icon 146 (Fig 6) which allows a viewer to transition between a full screen mode of operation and a window mode of operation (col 9, line 65-66).

Therefore, it would have been obvious to one skilled in the art at the time of the invention to modify/utilize Su which discloses a menu screen which includes stock market information, news, weather or TV information with Chor by using an interactive

program information and interactive icons in a menu screen, in order to provide the user the ability to interact/select the information (program/icon) of interest.

In considering claims 3-6, 14

Suh discloses that various display modes can be used where one picture is display entirely on the screen (Fig 3A/B), where one source is overlayed onto another source i.e. submenu (Fig 3C) or a dual side-by-side display (Fig 3D/E).

In considering claims 7-10,

Suh discloses that based on the users input for a desired screen mode, the TV microcomputer controls (in addition to relaying information from unit 210) double window processing unit 100 which either enlarges/reduces the selected source(s) based on the selected screen mode.

In considering claim 11,

a) the claimed setting a screen display mode... is met microcomputer 110 which can display two screens as shown in Fig 3c/d/e.

b) the claimed automatically sizing displayed elements... is met where Suh discloses that based on the users input for a desired screen mode, the TV microcomputer controls (in addition to relaying information from unit 210) double window processing unit 100 which either enlarges/reduces the selected source(s) based on the selected screen mode.

c) the claimed setting one of the plurality of screens is met where the user via key input can select a desired screen mode (Fig 1, 3A-E, 4)(col 1, line 43-60) and information processing unit 210 which also receives a key input via user. Where the display can display a 1st television signal, 2nd television signal, and also various kinds of communication services transmitted via the VAN, such as stock market quotes, news, weather or TV information (col 1, line 36-52).

d) the claimed displaying a menu element is met where microcomputer 110 controls (in addition to relaying signals from information processing unit 210) to double window processing unit 100 display the desired source(s) in the selected display mode (Fig 3A-E). As to the *automatically resizing said menu element in accordance with the size of the screen on which the menu is displayed* is met where based upon the display mode (Fig 3A-3E) will automatically resize the screen to the desired setting, which will automatically resize the elements on that screen into the new desired size.

However, Suh remains silent on (b) setting a screen as an interactive menu display screen and displaying an interactive menu element.

Suh discloses a system which is able to display based on the user's desired mode (col 4, line 13-20) via a key input signal to display the selected signals which includes main video signal (TV1), Sub Video signal TV and communication services transmitted via VAN (i.e. stock market quotes, news, weather or TV information).

The use of interactive menu display screens and interactive menu elements being displayed/utilized, is notoriously well-known in the art.

The examiner, provides Chor et al., US 6,141,003, which discloses a graphical user interface using a channel bar with icons to assist the viewer while navigating channels. As shown in the Figures 2-7, the user is able to select, view information on the channel bar/menu by selecting the appropriate icon/program information/menu (i.e. the user can select find show (142, Fig 6) or windows icon 146 (Fig 6) which allows a viewer to transition between a full screen mode of operation and a window mode of operation (col 9, line 65-66).

Therefore, it would have been obvious to one skilled in the art at the time of the invention to modify/utilize Su which discloses using a menu screen which includes stock information, news, weather or TV information, with Chor by using interactive menu screen with interactive elements, in order to provide the user the ability to interact/select the information (menu) of interest.

In considering claim 12,

Suh discloses that based on the users input for a desired screen mode, the TV microcomputer controls (in addition to relaying information from unit 210) double window processing unit 100 which either enlarges/reduces the selected source(s) based on the selected screen mode.

In considering claim 13,

a) the claimed displaying a picture and displaying elements is met where microcomputer 110 controls (in addition to relaying signals from information processing unit 210) to

double window processing unit 100 display the desired source(s) in the selected display mode (Fig 3A-E).

b) the claimed determining whether a menu key is input is met by microcomputer 110 which recognizes the (screen mode) key input via user (Fig 1&4) (col 1, line 43-60) and information processing unit 210 which also receives a key input via user. Where the display can display a 1st television signal, 2nd television signal, and also various kinds of communication services transmitted via the VAN, such as stock market quotes, news, weather or TV information (col 1, line 36-52).

c) the claimed determining which display mode... is met microcomputer 110 which controls the operation of the double window processing according to a selected screen mode.

d) the claimed dividing said TV screen... is met where TV microcomputer 110 recognizes a key input to control the double window processing unit 100 and for receiving and transmitting data in series with an information processing unit 210 (col 2, line 43-67)(Fig 3A-E)

e) the claimed setting one of said first or second sub-display screens is met by information processing unit 210 which outputs a switching control signal SW1-3 based on the desired display (col 7, line 36-40).

f) the claimed automatically resizing is met where based on the user selected key input, CPU 211 read data from ROM 212 which stores the necessary program operations for font data, and the required decoding of program and data. Where based upon the

display mode (Fig 3A-3E) will automatically resize the screen to the desired setting, which will automatically resize the elements on that screen into the new desired size. *g) the claimed displaying* is met where the selected signals are displayed on CRT 140. Suh discloses that based on the users input for a desired screen mode, the TV microcomputer controls (in addition to relaying information from unit 210) double window processing unit 100 which either enlarges/reduces the selected source(s) based on the selected screen mode.

However, Suh remains silent on (b) displaying an interactive menu, (e) interactive menu display screen and (a)/(f) icons/interactive icons.

Suh discloses a system which is able to display based on the user's desired mode (col 4, line 13-20) via a key input signal to display the selected signals which includes main video signal (TV1), Sub Video signal TV and communication services transmitted via VAN (i.e. stock market quotes, news, weather or TV information).

The use of interactive program information and interactive menu elements including an icon being displayed/utilized, is notoriously well-known in the art.

The examiner, provides Chor et al., US 6,141,003, which discloses a graphical user interface using a channel bar with interactive icons to assist the viewer while navigating channels. As shown in the Figures 2-7, the user is able to select, view information on the channel bar/menu by selecting the appropriate icon/program information (i.e. the user can select find show (142, Fig 6) or windows icon 146 (Fig 6)

which allows a viewer to transition between a full screen mode of operation and a window mode of operation (col 9, line 65-66).

Therefore, it would have been obvious to one skilled in the art at the time of the invention to modify/utilize Su which discloses a menu screen which includes stock market information, news, weather or TV information with Chor by using an interactive program information and interactive menus with icons in a menu screen, in order to provide the user the ability to interact/select the information (program/icon) of interest.

In considering claims 15-17,

Suh discloses that based on the users input for a desired screen mode, the TV microcomputer controls (in addition to relaying information from unit 210) double window processing unit 100 which either enlarges/reduces the selected source(s) based on the selected screen mode, thus automatically resizing the screen and elements.

In considering claim 18,

a) the claimed determining whether a menu key is input is met by microcomputer 110 which recognizes the (screen mode) key input via user (Fig 1&4) (col 1, line 43-60) and information processing unit 210 which also receives a key input via user. Where the display can display a 1st television signal, 2nd television signal, and also various kinds of communication services transmitted via the VAN, such as stock market quotes, news, weather or TV information (col 1, line 36-52).

b) the claimed determining which display mode... is met microcomputer 110 which controls the operation of the double window processing according to a selected screen mode.

c) the claimed dividing said TV screen... is met where TV microcomputer 110 recognizes a key input to control the double window processing unit 100 and for receiving and transmitting data in series with an information processing unit 210 (col 2, line 43-67)(Fig 3A-E)

d) the claimed setting one of said first or second sub-display screens is met by information processing unit 210 which outputs a switching control signal SW1-3 based on the desired display (col 7, line 36-40).

e) the claimed automatically sizing... is met where based on the selected/desired screen will initially reduce or increase the size of the selected element and screen.

f) the claimed automatically resizing is met where based on the user selected key input, CPU 211 read data from ROM 212 which stores the necessary program operations for font data, and the required decoding of program and data. Where based upon the display mode (Fig 3A-3E) and size of the character/elements, will automatically resize the screen to the desired setting, where the resizing of the icons would be based on the ratio between the size of the element and the size of the screen in order to maintain a proportional image being resized.

g) the claimed displaying is met where the selected signals are displayed on CRT 140. Suh discloses that based on the users input for a desired screen mode, the TV microcomputer controls (in addition to relaying information from unit 210) double

window processing unit 100 which either enlarges/reduces the selected source(s) based on the selected screen mode.

However, Suh remains silent on (a) displaying an interactive menu, (d) interactive menu display screen and (e) interactive icons.

Suh discloses a system which is able to display based on the user's desired mode (col 4, line 13-20) via a key input signal to display the selected signals which includes main video signal (TV1), Sub Video signal TV and communication services transmitted via VAN (i.e. stock market quotes, news, weather or TV information).

The use of interactive program information and interactive menu elements including an icon being displayed/utilized, is notoriously well-known in the art.

The examiner, provides Chor et al., US 6,141,003, which discloses a graphical user interface using a channel bar with interactive icons to assist the viewer while navigating channels. As shown in the Figures 2-7, the user is able to select, view information on the channel bar/menu by selecting the appropriate icon/program information (i.e. the user can select find show (142, Fig 6) or windows icon 146 (Fig 6) which allows a viewer to transition between a full screen mode of operation and a window mode of operation (col 9, line 65-66).

Therefore, it would have been obvious to one skilled in the art at the time of the invention to modify/utilize Su which discloses a menu screen which includes stock market information, news, weather or TV information with Chor by using an interactive program information and interactive menus with icons in a menu screen, in order to provide the user the ability to interact/select the information (program/icon) of interest.

In considering claim 19,

Suh discloses that various display modes can be used where one picture is display entirely on the screen (Fig 3A/B), where one source is overlayed onto another source i.e. submenu (Fig 3C) or a dual side-by-side display (Fig 3D/E).

In considering claims 20-21,

Suh discloses that based on the users input for a desired screen mode, the TV microcomputer controls (in addition to relaying information from unit 210) double window processing unit 100 which either enlarges/reduces the selected source(s) based on the selected screen mode.

Applicant's Arguments

a) Regards claims 1-22 the applicant states, that the examiner's points concerning a conventional PIP/POP are well taken. The applicant states that the examiner's points highlight the problem to be solved. The applicant states that it is necessary to "up" the size of menu elements (not in all cases) so that a viewer can read them easily.

Examiner's Response

a) The examiner notes that the claims do not include any language stating when menu elements should be upsized, nor any language reflecting "upsizing" the menu elements. The amended claims do include "wherein said menu element is easily discriminated by a viewer due to the new size". However, the examiner maintains that in a conventional PIP system, a viewer is able to easily discriminate the new size of an

elements which has been reduced due to the PIP operation, thus the newly amended claims are not patentable distinct over prior art.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure—see newly cited references on attached form PTO-892.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Yenke whose telephone number is (703) 305-9871. The examiner work schedule is Monday-Thursday, 0730-1830 hrs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, John W. Miller, can be reached at (703)305-4795.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist). Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 305-HELP.

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General information brochures can also be obtained in person from the Patent Search Room located in Crystal Plaza 3, Room 1A03, 2021 South Clark Place, Arlington, VA 22202.

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BRIAN P. YENKE
Primary Examiner
Art Unit 2614

B.P.Y
17 March 2004